

Field of study **Sciences and engineering**

Training available in

Initial training

Recognition of prior learning

How to apply :

<https://www.univ-gustave-eiffel.fr/en/formation/applications-and-enrolment/applications>

Course venue :

Campus Marne la Vallée - Champs sur Marne - Bâtiment Copernic 5 Boulevard Descartes 77420 Champs-sur-Marne

Calendar :

Contacts :

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More information :

For further details :
<https://www.univ-gustave-eiffel.fr/international/etudiants-internationaux>
Service Information,
Orientation et Insertion Professionnelle (SIO-IP) :
sio@univ-eiffel.fr / Tel : +33 1 60 95 76 76



Bachelor's degree Mathematics Double degree in mathematics, physics and chemistry



UFR de Mathématiques (MATHS)

Bachelor's degree L1 L2 L3

TO GET THERE

Scientific Baccalaureate (S) (Mathematics or Physics-Chemistry specialisation) or new general Baccalaureate (specialisations required are Mathematics and Physics-Chemistry, the Complementary Mathematics option is highly recommended).

ACQUIRED SKILLS

Acquiring sound general scientific training on theoretical, experimental and digital levels. Ability to roll out a scientific and/or abstraction approach. Explaining and presenting a project in writing and orally. In Mathematics: proficiency in the fundamental concepts of analysis, probability, statistics and linear algebra. In Physics and Chemistry: solving theoretical problems from Newtonian physics to modern physics and understanding its applications. In Computer Science: mastering the Python language. In English: level B2 minimum.

YOUR FUTURE CAREER

Double Mathematics - Physics Chemistry Degree students may pursue their studies with a Master's in Mathematics, a Master's in General Physics or a Master's in Applied Sciences or generalist or specialised course in an Engineering School by admission based on qualifications. The Master's accessible at Université Gustave Eiffel are: Mathematics and Applications Master's, Careers in Teaching, Education and Training Master's specializing in Mathematics, Actuarial Science Master's, Theoretical Chemistry Master's, Mechanics Master's, Risks and Environment Master's, Material Engineering and Sciences.

BENEFITS OF THE PROGRAM

Because of its specific nature (teaching in both Mathematics and Physics, Chemistry), our course provides a real alternative to traditional preparatory classes and offers a 3-year level diploma. Students' excellent level of knowledge and skills in mathematics and physical sciences offers them a wide range of opportunities for pursuing their studies. To facilitate transition from high school, a pre-term-start tutoring programme is organized and most modules during the 1st year are in small classes (Lessons-tutorials). To encourage students to work regularly and independently, regular checks are carried out and online exercises are proposed. During the programme, students may request to join the specific Mathematics or Physics, Chemistry pathways.

More information



PROGRAM

YEAR

MATHEMATIQUES

Calculus (ECTS:6)

Methodology (ECTS:6)

Numerical sequences and real functions (ECTS:6)

Linear algebra 1 (ECTS:6)

PHYSIQUE CHIMIE

Geometric optics - Kinematics and dynamics of the material point (ECTS:7)

General chemistry 1 (ECTS:5)

Electricity - Electronics 1 (ECTS:5)

Wave optics - Thermodynamics (ECTS:6)

Fluid and solid mechanics (ECTS:2)

General chemistry 2 (ECTS:6)

Electricity - Electronics 2 (ECTS:4)

COMPETENCES TRANSVERSES

Computer science 1 (ECTS:2)

English 1 (ECTS:2)

Computer science 2 (ECTS:2)

English 1 (ECTS:2)

YEAR

SEMESTRE 3

Linear Algebra 2 (ECTS:6)

Multivariable analysis (ECTS:5)

Numerical sequences and series (ECTS:2)

Computer science 3 (ECTS:4)

English 3 (ECTS:2)

Electromagnetism (ECTS:6)

Solid mechanics (ECTS:5)

Thermodynamics and reactivity in chemistry (ECTS:6)

SEMESTRE 4

Sequences and series of functions (ECTS:6)

Computer science 4 (ECTS:4)

English 4 (ECTS:2)

Probability modeling (ECTS:6)

Differential equation 1 (ECTS:3)

From vibrations to waves (ECTS:3)

Fluid mechanics (ECTS:3)

Thermodynamics 2 (ECTS:3)

Mineral chemistry (ECTS:5)

YEAR

Mathématiques

Normed vector spaces (ECTS:6)

Integration and probabilities (ECTS:9)

Hilbert analysis (ECTS:6)

Differential equations 2 (ECTS:6)

Optimisation Option A (ECTS:6)

Statistiques Option B (ECTS:6)

Compétences transverses

English (ECTS:3)

Numerical mathematics and Python (ECTS:6)

Physique

Electromagnetism and electromagnetic waves (ECTS:6)

Physics experiments (ECTS:3)

Nuclear and particle physics (ECTS:3)

Repositories and central fields (ECTS:3)

Statistical Physics (ECTS:4)

Acoustic waves (ECTS:2)

Relativistic physic (ECTS:3)

Wave optics (ECTS:3)

Project (ECTS:3)

Spectroscopie atomique et moléculaire Option A (ECTS:6)

Automatisme Option B (ECTS:6)

Dynamique des fluides Option A (ECTS:4)

Stage Option B (ECTS:2)